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Attorney Docket No. 50450-8311.US03

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF:
Patrick L. Iversen

APPLICATION NO.: 10/723,354

FILED: November 25, 2003

FOR: **ENZYME INHIBITORS FOR METABOLIC REDIRECTION**

EXAMINER: Epps-Ford, Janet L.

ART UNIT: 1633

CONF. NO: 8250

Information Disclosure Statement After First Office Action but Before Final Action or Notice of Allowance – 37 C.F.R. § 1.97(c)

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

1. Timing of Submission

The information transmitted herewith is being filed *after* three months of the filing date of this application or after the mailing date of the first Office action on the merits, whichever occurred last, but *before* the mailing date of either a final action under 37 C.F.R. § 1.113 or a Notice of Allowance under 37 C.F.R. §1.311, whichever occurs first. The references listed on the enclosed Form PTO-1449 (modified) may be material to the examination of this application; the Examiner is requested to make them of record in the application.

2. Cited Information

☒ Reference A1 is a U.S. patent and therefore is not enclosed.

☒ Copies of references A4-A6, A20, A23 and A28 are enclosed:

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☒ Copies of the references A2, A3, A7-A19, A21, A22 A24-A27 can be found in corresponding U.S. applications 09/737,452 filed December 13, 2000, now U.S. Patent 6,673,778, and 09/574,570 filed May 17, 2000, now U.S. Patent 6,686,338 of which this application claims priority under 35 U.S.C. §120, and are not being submitted herewith (see C.F.R. § 1.98(d)).

3. Effect of Information Disclosure Statement (37 C.F.R. § 1.97(h))

This Information Disclosure Statement is not to be construed as a representation that: (i) a search has been made; (ii) additional information material to the examination of this application does not exist; (iii) the information, protocols, results and the like reported by third parties are accurate or enabling; or (iv) the cited information is, or is considered to be, material to patentability. In addition, applicant does not admit that any enclosed item of information constitutes prior art to the subject invention and specifically reserves the right to demonstrate that any such reference is not prior art.

4. Fee Payment (37 C.F.R. § 1.97(c)) or Certification (37 C.F.R. § 1.97(e))

☒ Applicant elects to pay the fee under 37 C.F.R. § 1.17(p) $180.00.

- ☒ Check enclosed for $180.00 (covering the fee under 37 C.F.R. .§ 1.17(p))
- ☐ Please charge the above fee(s) to Deposit Account No. 50-2207 this paper is provided in triplicate.

☐ Applicant submits that no fee is due in light of the following certification under 37 C.F.R. § 1.97(e) (check only one):

- ☐ In accordance with 37 C.F.R. § 1.97(e)(1), the undersigned hereby states that each item of information submitted herewith was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to this filing of this statement; or
- ☐ In accordance with 37 C.F.R. § 1.97(e)(2), the undersigned hereby states that no item of information submitted herewith was cited in a communication from a foreign patent office in a counterpart foreign application, or, to the knowledge of the person signing the certification after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c), more than three months prior to the filing of this statement.
- ☒ Please charge any underpayment for timely filing of this paper to Deposit Account No. 50-2207.

5. Patent Term Adjustment (37 C.F.R. § 1.704(d))

☐ The undersigned states that each item of information submitted herewith was cited in a communication from a foreign patent office in a counterpart application and that this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of this statement. 37 C.F.R. § 1.704(d).

Respectfully submitted,
Perkins Coie LLP

Date: September 18, 2006

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT
Form PTO-1449 (Modified)
(Use several sheets if necessary)

Sheet 1 of 3

COMPLETE IF KNOWN	
Application Number	10/723,354
Confirmation Number	8250
Filing Date	November 25, 2003
First Named Inventor	Patrick L. Iversen
Group Art Unit	1633
Examiner Name	Epps-Ford, Janet L.
Attorney Docket No.	50450-8311.US03

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.	U.S. Patent or Application NUMBER	Kind Code (if known)	Name of Patentee or Inventor of Cited Document	Date of Publication or Filing Date of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A1	5,585,479		Hoke et al.	12/96	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.	Foreign Patent or Application Office	NUMBER	Kind Code (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication or Filing Date of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T
	A2	PCT	WO 00/20432		WO	4/00		
	A3	PCT	WO 00/24885		WO	5/00		
	A4	PCT	WO 00/74667		WO	12/00		

OTHER PRIOR ART-NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume issue number(s), publisher, city and/or country where published.	T
	A5	Arora V. *et al., Current Opinion in Molecular Therapeutics*, 3(3):249-257 (2001).	
	A6	Bolz, *et al., The FASEB Journal*, 14:255-260 (2000).	
	A7	Branch, A.D., "A good antisense molecule is hard to find", *TIBS* 23:45-50 (1998).	
	A8	Branch, A.D., "A good antisense molecule is hard to find", *TIBS*, 47-48 (1998).	
	A9	Bristow, J., *et al.*, "Antisense RNA regulation by transcripts from the human F450c21B gene and P450c21A "pseudogene" *Clinical Research*, 41(2):272A abstract only (1993).	
	A10	Cai, Y., *et al.*, "Inhibition of metabolism of benzo[a]pyrene by a c-5 propyne antisense oligonucletide against cytochrome P450 1A1 in mouse hepatoma cell line (Hepa-1)" SOT Annual Meeting pp. 21 abstract # 101 (1998).	
	A11	Chirila et al., *Biomaterials*, 23:321-342 (2002).	

EXAMINER	DATE CONSIDERED

*EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application(s).

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	A12	Correia, M.A. and Castagnoli, Jr., N., "Pharmacokinetics: Drug Biotransformation" Basic and Clinical Pharmacology Katzung (ed.) Appleton & Lange, Los Altos, CA, pp. 36-37 (1987).				
	A13	Dejardines, J., *et al.*, "Cholesteryl-Conjugated Phoshorothioate Oligodeoxynucleotides Modulate CYP2B1 Expression In Vivo" *J. of Drug Targeting*, 2:477-485 (1995).				
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	A15	Desjardines, J.P. and Iversen, P.L., "Inhibition of the Rat Cytochrome P450 3A2 by an Antisense Phosphorothioate Oligodeoxynucleotide In Vivo" *J. of Pharmacology and Experimental Therapeutics*, 275(3):1608-1613 (1995).				
	A16	Einolf, H.J. and Baird, W.M., "Effects of antisense oligonucleotides on the metabolism of benzo(a)pyrene by P4501A1 in the mouse hepatoma cell line, Hepa-1" Proceedings of the American Association for Cancer Research Annual Meeting 35:134 abstract # 801 (1994).				
	A17	Gewirtz, A.M., et al., "Facilitating oligonucleotide delivery: Helping antisense deliver on its promise", *Proc Natl Acad Sci USA*, 93:3161-3163 (1996).				
	A18	Hanecak, R., *et al.*, "Antisense Oligonucleotide Inhibition of Hepatitis C Virus Gene Expression in Transformed Hepatocytes", *Journal of Virology*, 70(8):5203-5212 (1996).				
	A19	Hangeland, J.J., *et al.*, "Tissue Distribution and Metabolism of the [.sup.32 P]-Labeled Oligodeoxynucleoside Methylphosphonate-Neoglycopeptide Conjugate, [YEE(ah-GalNAc).sub.3]-SMCC-AET-pU.sup.m pT.sub.7, in the Mouse", *Antisense & Nucleic Acid Drug Development*, 7:141-149 (1997).				

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	A20	Hudziak *et al., Antisense & Nucleic Acid Drug Development,* 10:163-176 (2000).				
	A21	Ingelman-Sundberg, *Journal of Internal Medicine*, 250:186-200 (2001).				
	A22	Nelson, D.R., *et al.*, "The P450 Superfamily: Update on New Sequences, Gene Mapping, Accession Numbers, Early Trivial Names of Enzymes, and Nomenclature", *DNA and Cell Biology,* 12(1):1-51 (1993).				
	A23	Rait *et al., Cancer Gene Therapy*, 8(10):728-739 (2001).				
	A24	Rojanasakul, Y., "Antisense oligonucleotide therapeutics: drug delivery and targeting", *Advanced Drug Delivery Reviews*, 18:115-131 (1996).				
	A25	Sindhu, R.K., *et al.*, "Inhibition of Cytochrome P450 1A1 by Antisense Phosphorothioate Oligonucleotide in Hepa Iclc7 Cells", *Biochemical and Biophysical Research Communications*, 229:673-680 (1996).				
	A26	Stanley T. Crooke, Basic Principles of Anitsense Therapeutics, Springer-Verlag, NY, p. 3 (1998). .				
	A27	Stein et al., *Pharmacology & Therapeutics*, 85:231-236 (2000).				
	A28	Summerton *et al., Antisense & Nucleic Acid Drug Development,* 7:187-195 (1997).				

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